# PATENT ABSTRACTS OF JAPAN

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(71)Applicant : NICHIHA CORP

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(72)Inventor: ISHIKO TAKURO

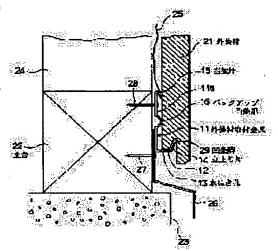
# (54) GROUNDSILL PART FITTING STRUCTURE OF EXTERNAL FACING MATERIAL

(57) Abstract:

PROBLEM TO BE SOLVED: To simplify mounting of an external facing, material fitting and improve construction

quality.

SOLUTION: An external facing material fitting 11 is formed in longsized shape by bending one band-like metal plate. A plurality of drip holes 13 are formed at a bottom face part 12, and a rising piece 14 bent obliquely upward is formed at the tip of the bottom face part 12. The upper part of the external facing material fitting 11 is bent frontward into inverted V-shape or inverted Ushape to form a contact piece 15, and the intermediate part of a back face part 11a is pressed frontward into bead shape to form a backup protruding part 16. This external facing material bracket 11 is horizontally put along a sill 22 from under waterproof paper 25 and fixed to the outer side face of the sill 22 with a nail 28. The lower end part of external facing material 21 is received and supported by the bottom face part 12 of the external facing material fitting 11, and a recessed groove



29 at the lower end face of the external facing material 21 is fitted to the rising piece 14. A water drip member 26 is previously fitted below the external facing material fitting 11.

### **LEGAL STATUS**

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### **CLAIMS**

### [Claim(s)]

[Claim 1] In the foundation section attachment structure of the sheathing material which attaches sheathing-material fixing metal in a foundation on a nail or a screw, and receives and supports the soffit of a sheathing material with this sheathing-material fixing metal in the aforementioned sheathing-material fixing metal, in accordance with the aforementioned foundation, it is prolonged for a long time by the folding of a band-like metal plate, and a longitudinal-section configuration turns into an about L characters configuration — as forming — the base section — a scupper, while a hole is formed By carrying out bending formation of the piece of a standup by which the concave streak slot formed in the soffit side of the aforementioned sheathing material is inserted in the point of this base section, and bending the upper part of the aforementioned sheathing-material fixing metal to a reverse V typeface or an inverted-U character form to the aforementioned sheathing-material side Foundation section attachment structure of the sheathing material characterized by having formed the piece of contact which contacts the rear face of this sheathing material, and forming the backup protruding line section which contacts the rear face of this sheathing material by carrying out the die pressing of the pars intermedia of the aforementioned sheathing-material fixing metal to the shape of a bead, and processing it to the aforementioned sheathing-material side. [Claim 2] Foundation section attachment structure of the sheathing material according to claim 1 characterized by having formed intermittently two or more aforementioned pieces of contact in the upper part of the aforementioned sheathing-material fixing metal, having formed the extended piece prolonged up as it is between each piece of contact, having bent each extended piece right-angled to the background, and attaching each extended piece in the top of the aforementioned foundation on a nail or a screw.

[Claim 3] Foundation section attachment structure of the sheathing material according to claim 1 or 2 characterized by forming the heights for floating the soffit side of the aforementioned sheathing material from this base section in the base section of the aforementioned sheathing—material fixing metal.

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### **DETAILED DESCRIPTION**

# [Detailed Description of the Invention] [0001]

[The technical field to which invention belongs] this invention relates to the foundation section attachment structure of the sheathing material which attaches a sheathing material in a foundation with sheathing-material fixing metal, without minding a furring strip.

[0002]

[Description of the Prior Art] From the former, the metallic-ornaments method of construction is used abundantly at construction of a sheathing material from the horizontal deflection flattery nature to an earthquake etc., and the viewpoint of the formation of construction easy. By the conventional general metallic-ornaments method of construction, when it fixes a sheathing material to a foundation, a furring strip is beforehand fixed to a foundation, and sheathing-material fixing metal is attached in this furring strip, and it is made to fix a sheathing material. [0003] However, in recent years, horizontal \*\*\*\*\*\* which omits a furring strip from the viewpoint of saving resources and low-cost-izing is adopted more often. As a conventional example of the sheathing-material fixing metal used for this method of construction, as shown in JP,62-22247,U, two or more small sheathing-material fixing metal is struck against a foundation with a nail, and there are some which receive and supported the soffit of the sheathing material of one sheet with two or more small sheathing-material fixing metal. [0004]

[Problem(s) to be Solved by the Invention] In the above-mentioned well-known example, the ground for receiving and supporting the sheathing material of one sheet with two or more small sheathing-material fixing metal is because storm sewage and dew condensation water which trespassed upon the rear face of a sheathing material can be drained outside from between small sheathing-material fixing metal. However, by this constructing method, in order to have to attach much sheathing-material fixing metal on a straight line horizontally in accordance with a foundation, there is also a fault that attachment work of sheathing-material fixing metal is very troublesome, the attaching position of about [ that a workability is bad ] and sheathing-material fixing metal tends to become irregular, and a construction quality tends to become bad. [0005] Moreover, although the workspace by the side of the outdoors needs to attach a sheathing material from an indoor side in a narrow construction site, by the above-mentioned well-known example, it is difficult to attach sheathing-material fixing metal from an indoor side, and it can use only for construction from an outdoors side.

[0006] It makes for this invention to simplify attachment of sheathing-material fixing metal, and to raise a construction quality in consideration of such a situation, into the 1st purpose, and let it be the 2nd purpose to enable it to attach sheathing-material fixing metal further easily from any [ by the side of an outdoors side and indoor ] side.
[0007]

[Means for Solving the Problem] In order to attain the 1st above-mentioned purpose, the foundation section attachment structure of the sheathing material of the claim 1 of this invention In what attaches sheathing-material fixing metal in a foundation on a nail or a screw, and receives and supports the soffit of a sheathing material with this sheathing-material fixing

metal in the aforementioned sheathing-material fixing metal, in accordance with the aforementioned foundation, it is prolonged for a long time by the folding of a band-like metal plate, and a longitudinal-section configuration turns into an about L characters configuration — as — forming — the base section — a scupper, while a hole is formed By carrying out bending formation of the piece of a standup by which the concave streak slot formed in the soffit side of the aforementioned sheathing material is inserted in the point of this base section, and bending the upper part of the aforementioned sheathing-material fixing metal to a reverse V typeface or an inverted—U character form to the aforementioned sheathing-material side. The piece of contact which contacts the rear face of this sheathing material is formed, and it considers as the configuration in which the backup protruding line section which contacts the rear face of this sheathing material was formed, by carrying out the die pressing of the pars intermedia of the aforementioned sheathing-material fixing metal to the shape of a bead, and processing it to the aforementioned sheathing-material side.

[0008] With this configuration, by forming sheathing-material fixing metal for a long time in accordance with a foundation, while sheathing-material fixing metal required for construction of a skin is made band-like, level level adjustment of sheathing-material fixing metal is also made easy. furthermore — while the rear face of a sheathing material is separated from sheathing-material fixing metal, the opening for drainage is formed among both and flowing of the storm sewage and dew condensation water to the lower part between both is improved by the piece of contact, and the backup protruding line section — this water — the scupper of the base section of sheathing-material fixing metal — it drains from a hole, and prevents water piling up in the base section of sheathing-material fixing metal, and the endurance fall by water absorption of a sheathing material is prevented

[0009] Moreover, in order to attain the 2nd aforementioned purpose, the extended piece to which two or more aforementioned pieces of contact are intermittently formed at the upper part of the aforementioned sheathing-material fixing metal, and the foundation section attachment structure of the sheathing material of the claim 2 of this invention extends up as it is between each piece of contact is formed.

[0010] Although what is necessary is just to attach sheathing—material fixing metal in a foundation with this configuration, extending each extended piece up in constructing from an outdoors side, in constructing from an indoor side, each extended piece is bent right—angled to a background, and it attaches each extended piece in the top of a foundation on a nail or a screw. It enables this to attach sheathing—material fixing metal easily from any [ by the side of an outdoors side and indoor ] side.

[0011] Moreover, in the claim 3, the heights for floating the soffit side of the aforementioned sheathing material from this base section to the base section of the aforementioned sheathing—material fixing metal is formed. the water which was able to receive in the base section of sheathing—material fixing metal by this — a scupper — a hole — going — flowing — being easy — drainage nature improves further [0012]

[Embodiments of the Invention] Hereafter, the 1st operation gestalt of this invention is explained based on the <u>drawing 1</u> and the <u>drawing 2</u>. First, based on <u>drawing 2</u>, the structure of the sheathing-material fixing metal 11 is explained. The sheathing-material fixing metal 11 is formed in a long picture of the folding of the band-like metal plate of one sheet, and the longitudinal-section configuration is an about L characters configuration. two or more scuppers [ section / base / 12 / of this sheathing-material fixing metal 11 ] — a hole 13 is formed in a single tier at intervals of predetermined, and bending formation of the piece 14 of a standup is carried out upward / slanting / at the point of this base section 12 Moreover, by bending the upper part of the sheathing-material fixing metal 11 to a reverse V typeface or an inverted-U character form to a front side, the piece 15 of contact is formed and the backup protruding line section 16 is further formed by carrying out the die pressing of the pars intermedia of tooth-back section 11a of the sheathing-material fixing metal 11 to the shape of a bead, and processing it to a front side. Moreover, two or more \*\*\*\*\* 17 are formed in tooth-back section 11a of the sheathing-material fixing metal 11 at intervals of predetermined at the single tier.

[0013] Next, based on <u>drawing 1</u>, the structure of attaching the sheathing material 21 of a ceramic industry system in a foundation 22 using the above-mentioned sheathing-material fixing metal 11 is explained. A foundation 22 is fixed with anchor bolt (not shown) etc. on a concrete foundation 23, and the timber 24 is set up on this foundation 22. The waterproof paper 25 is stuck from the side front by the staple etc. to these sheathing materials 21 and the timber 24. And the ridge material 26 is in \*\* horizontally in accordance with a foundation 22 from under a waterproof paper 25, and it is striking and fixing to the lateral surface of a foundation 22 with the nail 27. The lower part of this ridge material 26 is bent in the shape of eaves, covers the upper part of a concrete foundation 23, and is made not to require storm sewage for the upper part of a concrete foundation 23.

[0014] Furthermore, it is located in the upper part of this ridge material 26, and in accordance with a foundation 22, \*\* is horizontally from under a waterproof paper 25, the sheathing-material fixing metal 11 is struck against a foundation 22 with a nail 28, and it is fixing. laying the lower part of tooth-back section 11a of this sheathing-material fixing metal 11 on top of the upper part of the ridge material 26 — the scupper of the sheathing-material fixing metal 11 — the water which falls from a hole 13 drains certainly by the ridge material 26 Thus, the soffit section of a sheathing material 21 receives and supports in the base section 12 of the sheathing-material fixing metal 11 fixed to the foundation 22, and the concave streak slot 29 formed in the soffit side of this sheathing material 21 is inserted in the piece 14 of a standup of the sheathing-material fixing metal 11.

[0015] In this attachment status, the rear face of a sheathing material 21 contacts the backup protruding line section 16 and the piece 15 of contact of the sheathing—material fixing metal 11, the role which carries out the elastic support of the sheathing material 21 from a background, and buffers the impact load from the exterior by these backups protruding line section 16 and the piece 15 of contact carrying out elastic deformation is played, and the crack and chip of a sheathing material 21 are prevented. Furthermore, the backup protruding line section 16 and the piece 15 of contact also play the role which secures the opening for drainage between the sheathing—material fixing metal 11 and the rear face of a sheathing material 21, and improve flowing of the storm sewage and dew condensation water to the lower part between the sheathing—material fixing metal 11 and the rear face of a sheathing material 21. and this water — the base section 12 of the sheathing—material fixing metal 11 — receiving — a scupper — it drains from a hole 13, and prevents water piling up in the base section 12 of the sheathing—material fixing metal 11, the water absorption from the soffit side of a sheathing material 21 is prevented, and the endurance of a sheathing material 21 is raised

[0016] And since the sheathing-material fixing metal 11 can be formed in a long picture with the above-mentioned operation gestalt, without spoiling drainage nature unlike the former While the number of books of the sheathing-material fixing metal 11 required for construction of a skin can be lessened, attachment work of the sheathing-material fixing metal 11 can be simplified more sharply than the former and a workability can be improved Level level adjustment of the sheathing-material fixing metal 11 is also very easy, the foundation section attaching position of a sheathing material 21 can be horizontally arranged easily on a straight line, and a construction quality can also improve.

[0017] On the other hand, drawing 3 shows the perspective diagram of the sheathing-material fixing metal 11 used for the 2nd operation gestalt of this invention. this 2nd operation gestalt — the base section 12 of the sheathing-material fixing metal 11 — each scupper — between holes 13, the heights 30 which projects up is formed and it is made to lose touch with the base section 12 in the soffit side of a sheathing material 21 by this heights 30 the water which was able to receive in the base section 12 by this — a scupper — a hole 13 — going — flowing — being easy — drainage nature becomes still good The configuration of those other than this is the same as that of the operation gestalt of the above 1st.

[0018] In addition, the height dimension of the piece 14 of a standup of the sheathing-material fixing metal 11 is made higher than the depth dimension of the concave streak slot 29 of a sheathing material 21, and it may be made to float the soffit side of a sheathing material 21 by receiving and supporting the load of a sheathing material 21 by the upper limit of the piece 14 of

a standup from the base section 12.

[0019] Moreover, since the concrete foundation 23 had projected outside from the foundation 22, although the upper part of a concrete foundation 23 is covered by the ridge material 26 and the drainage from the sheathing-material fixing metal 11 was made not to be poured on the upper part of a concrete foundation 23 with the operation gestalt of the above 1st A concrete foundation 23 projects and bends from a foundation 22, and like the 3rd operation gestalt of this invention shown in drawing 4, it may be made to attach in a case so that the sheathing-material fixing metal 11 may be made to project from the lower part of a foundation 22 to a concrete-foundation 23 side.

[0020] while the joint of a concrete foundation 23 and the foundation 22 is covered by tooth-back section 11a of the sheathing-material fixing metal 11 and can prevent irruption of the storm sewage to this joint with this configuration — the scupper of the sheathing-material fixing metal 11 — the water drained from a hole 13 comes to fall on the ground, and drainage nature equivalent to the operation gestalt of the above 1st can be obtained

[0021] Although the sheathing-material fixing metal 11 used with each the 1st explained above or 3rd operation gestalt is used when constructing from an outdoors side, it may need to attach a sheathing material 21 from an indoor side in the construction site where the workspace by the side of the outdoors is narrow.

[0022] In this case, what is necessary is just to constitute like the 4th operation gestalt of this invention shown in the drawing 5 and the drawing 6. That is, two or more pieces 32 of contact which contact the rear face of a sheathing material 21 are formed intermittently, the extended piece 33 prolonged up as it is between each piece 32 of contact is formed in the upper part of the sheathing-material fixing metal 31, and \*\*\*\* 34 is formed in it at each extended piece 33. [0023] What is necessary is just to attach the sheathing-material fixing metal 31 in the lateral surface of a foundation 22 like each aforementioned operation gestalt with this configuration, extending each extended piece 33 up, in constructing from an outdoors side. On the other hand, first, in constructing from an indoor side, as the two-dot chain line shows, it bends each extended piece 33 right-angled to a background to drawing 5. Then, as shown in drawing 6, each extended piece 33 of \*\* is in the top of a foundation 22, and the sheathing-material fixing metal 31 is fixed to a foundation 22 by clamping a nail 35 to the top of a foundation 22 from the upper part. It enables this to attach the sheathing-material fixing metal 31 easily from any L by the side of an outdoors side and indoor ] side. The configuration of those other than this is the same as that of the operation gestalt of the above 1st. In addition, it cannot be overemphasized that each extended piece 33 may be bent right-angled to a background, and you may construct about the case where it constructs from an outdoors side as well as the case where it constructs from an indoor side as shown in drawing 6.

[0024] Although the sheathing-material fixing metal 11 and 31 was attached in the foundation 22 with nails 28 and 35 in each operation gestalt explained above, it cannot be overemphasized that it may be made to attach this on a screw. moreover, the backup protruding line section 16 and the piece 15 of contact — being intermittent (intermittent) — it forms and may be made to improve flowing of the storm sewage and dew condensation water to the lower part between the sheathing-material fixing metal 11 and 31 and the rear face of a sheathing material 21 much more

[0025]

[Effect of the Invention] Since sheathing—material fixing metal can be formed in a long picture according to the configuration of the claim 1 of this invention, without spoiling drainage nature so that clearly from the above explanation, while sheathing—material fixing metal required for construction of a skin can be made band—like, the number of used books can be lessened and attachment work of sheathing—material fixing metal can be simplified conventionally, level level adjustment of sheathing—material fixing metal is also very easy, and a construction quality can also improve. And while the impact load applied to a sheathing material from the exterior can be buffered and the crack and chip of a sheathing material can be prevented by the backup protruding line section formed in sheathing—material fixing metal, and the piece of contact the water which can secure the opening for drainage, is transmitted to the opening, and falls

between sheathing-material fixing metal and the rear face of a sheathing material — the scupper of the base section of sheathing-material fixing metal — it can drain from a hole and an endurance fall of the sheathing material by water absorption of a sheathing material can be prevented

[0026] Moreover, with the configuration of a claim 2, since the extended piece prolonged up as it is was formed among two or more pieces of contact intermittently formed in the upper part of sheathing-material fixing metal, sheathing-material fixing metal can be attached by bending each extended piece right-angled to a background easily from any [ by the side of an outdoors side and indoor ] side.

[0027] Moreover, in a claim 3, since the soffit side of a sheathing material can be floated from this base section by the heights formed in the base section of sheathing-material fixing metal, the drainage nature of the water which was able to receive in the base section of sheathing-material fixing metal can be improved further.

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### **DESCRIPTION OF DRAWINGS**

[Brief Description of the Drawings]

[Drawing 1] The vertical section side elevation of the foundation section attachment structure of the sheathing material which shows the 1st operation gestalt of this invention

[Drawing 2] The partial perspective diagram of the sheathing-material fixing metal used with the 1st operation gestalt

[Drawing 3] The partial perspective diagram of the sheathing-material fixing metal used with the 2nd operation gestalt of this invention

[Drawing 4] The vertical section side elevation of the foundation section attachment structure of the sheathing material which shows the 3rd operation gestalt of this invention

[Drawing 5] The partial perspective diagram of the sheathing-material fixing metal used with the 4th operation gestalt of this invention

[Drawing 6] The vertical section side elevation of the foundation section attachment structure of a sheathing material in the 4th operation gestalt

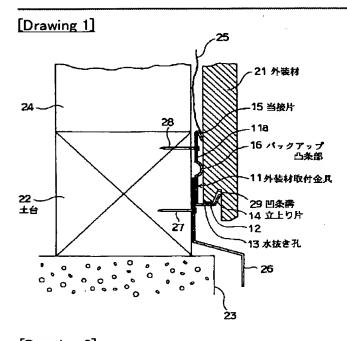
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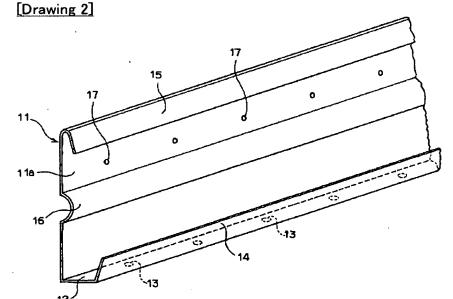
11 — sheathing-material fixing-metal and 11a— the tooth-back section, 12 — base section, and 13 — scupper — a hole — 14 [ — The backup protruding line section, 17 / — \*\*\*\*, ] — The piece of a standup, 15 — The piece of contact, 16 21 [ — A concrete foundation, 24 / — A timber, 25 / — A waterproof paper, 26 / — Ridge material, 27 28 / — A nail, 29 / — A concave streak slot, 30 / — A heights, 31 / — Sheathing-material fixing metal, 32 / — The piece of contact, 33 / — An extended piece, 34 / — \*\*\*\*, 35 / — Nail. ] — A sheathing material, 22 — A foundation, 23

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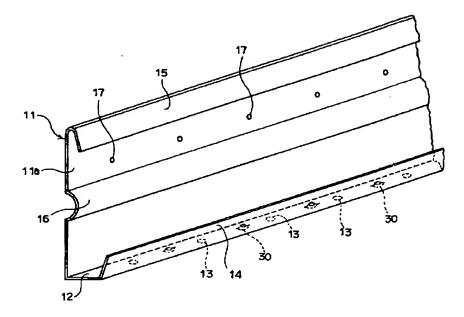
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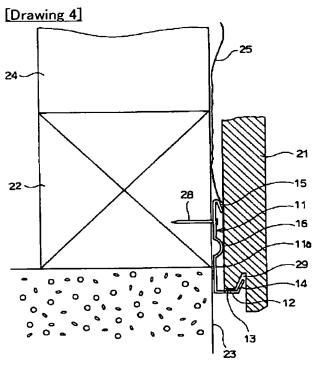
### **DRAWINGS**



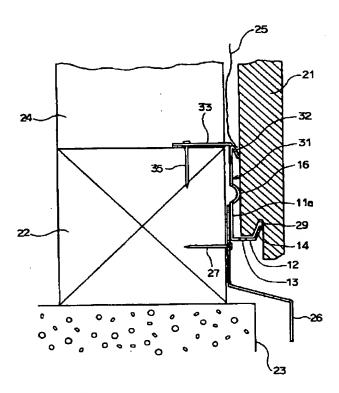


# [Drawing 3]

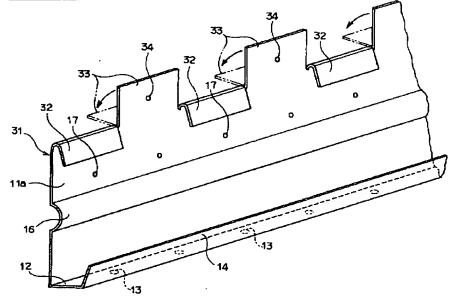




[Drawing 6]



# [Drawing 5]





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(71)出題人 000110860

ニチハ株式会社

愛知県名古屋市港区汐止町12番地

平成7年(1995)9月21日 (22) 出願日

(72) 発明者 石子 琢郎

名古屋市港区汐止町12番地 ニチハ株式会

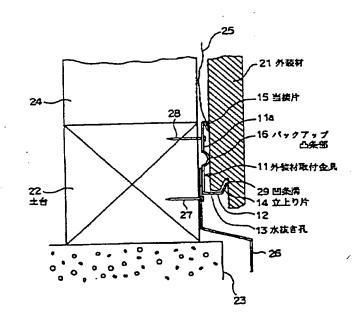
(74)代理人 弁理士 加古 宗男

# (54) 【発明の名称】 外装材の土台部取付構造

### (57)【要約】

~【課題】 外装材取付金具の取付を簡単化し且つ施工品 質を向上させる。

【解決手段】 外装材取付金具11は、1枚の帯状金属 板の折曲加工により長尺な形状に形成し、その底面部1 2に複数の水抜き孔13を形成すると共に、該底面部1 2の先端部に、立上り片14を斜め上向きに折曲形成す る。この外装材取付金具11の上部を前側へ逆V字形若 しくは逆U字形に折曲することで、当接片15を形成 し、更に、背面部11 aの中間部を前側へビード状に型 押し加工することで、バックアップ凸条部16を形成す る。この外装材取付金具11を防水紙25の下から土台 22に沿って水平に宛がい、釘28で土台22の外側面 に打ち付けて固定する。この外装材取付金具11の底面 部12で外装材21の下端部を受け支え、外装材21の 下端面の凹条溝29を立上り片14に嵌め込む。この外 装材取付金具11の下方には予め水切り材26が取り付 けられている。



10

# 【特許請求の範囲】

【請求項1】 土台に外装材取付金具を釘又はビスにより取り付け、この外装材取付金具で外装材の下端を受け 支持する外装材の土台部取付構造において、

前記外装材取付金具を、帯状金属板の折曲加工により前 記土台に沿って長く延び且つ縦断面形状がほぼL字形状 となるように形成し、その底面部に、水抜き孔を形成す ると共に、該底面部の先端部に、前記外装材の下端面に 形成された凹条溝が嵌め込まれる立上り片を折曲形成 し、

前記外装材取付金具の上部を前記外装材側へ逆V字形若 しくは逆U字形に折曲することにより、該外装材の裏面 に当接する当接片を形成し、

前記外装材取付金具の中間部を前記外装材側へビード状 に型押し加工することにより、該外装材の裏面に当接す るバックアップ凸条部を形成したことを特徴とする外装 材の土台部取付構造。

【請求項2】 前記外装材取付金具の上部には、前記当接片が複数個間欠的に形成され、各当接片の間に、そのまま上方に延びる延長片が形成され、各延長片を裏側へ直角に折曲して、各延長片を前記土台の上面に釘又はビスにより取り付けたことを特徴とする請求項1に記載の外装材の土台部取付構造。

【請求項3】 前記外装材取付金具の底面部には、該底面部から前記外装材の下端面を浮き上がらせるための凸部が形成されていることを特徴とする請求項1又は2に記載の外装材の土台部取付構造。

### 【発明の詳細な説明】

### [0001]

【発明の属する技術分野】本発明は、外装材を胴縁を介 30 さずに土台に外装材取付金具で取り付ける外装材の土台 部取付構造に関するものである。

#### [0002]

【従来の技術】従来より、地震等に対する横振れ追従性と施工容易化の観点から外装材の施工に金具工法が多用されている。従来の一般的な金具工法では、土台に外装材を固定する場合に、予め土台に胴縁を固定し、この胴縁に外装材取付金具を取り付けて外装材を固定するようにしている。

【0003】しかし、近年では、省資源・低価格化の観点から胴縁を省略する横貼工法が採用されることが多くなってきている。この工法に用いる外装材取付金具の従来例としては、実開昭62-22247号公報に示すように、土台に複数の小幅の外装材取付金具を釘で打ち付け、1枚の外装材の下端を複数の小幅の外装材取付金具で受け支えるようにしたものがある。

### [0004]

【発明が解決しようとする課題】上記公知例において、 1枚の外装材を複数の小幅の外装材取付金具で受け支え る理由は、外装材の裏面に侵入した雨水や結露水を小幅 の外装材取付金具の間から外部に排水できるようにする ためである。しかし、この施工法では、土台に沿って数 多くの外装材取付金具を水平方向に一直線上に取り付け なければならないため、外装材取付金具の取付作業が甚 だ面倒で、施工性が悪いばかりか、外装材取付金具の取 付位置が不揃いになり易く、施工品質が悪くなり易いと いう欠点もある。

【0005】また、屋外側の作業スペースが狭い施工現場では、屋内側から外装材を取り付ける必要があるが、上記公知例では、外装材取付金具を屋内側から取り付けることが困難であり、屋外側からの施工にしか利用することができない。

【0006】このような事情を考慮し、本発明は、外装材取付金具の取付を簡単化し且つ施工品質を向上させることを第1の目的とし、更に、屋外側・屋内側のいずれの側からも容易に外装材取付金具を取り付けることができるようにすることを第2の目的とする。

### [0007]

【課題を解決するための手段】上記第1の目的を達成するために、本発明の請求項1の外装材の土台部取付構造は、土台に外装材取付金具を釘又はピスにより取り付け、この外装材取付金具を釘又はピスにより取り付け、この外装材取付金具を、帯状金属板の下端を受け支持するものにおいて、前記外装材取付金具を、帯状金属板の折曲加工により前記土台に沿って長く延び且つ縦断面形状がほぼし字形状となるように形成し、その底面部に、水抜き孔を形成すると共に、該底面部の先端部に、前記外装材の下端面に形成された凹条溝が嵌め込まれる立上り片を折曲形成し、前記外装材取付金具の中間部を前記外装材側へピード状に型押し加工することにより、該外装材の裏面に当接するパクアップ凸条部を形成した構成としたものである。

【0008】この構成では、外装材取付金具を土台に沿って長く形成することで、外壁面の施工に必要な外装材取付金具を帯状にすると共に、外装材取付金具の水平レベル調整も容易にする。更に、当接片とバックアップ凸条部とによって外装材の裏面を外装材取付金具から離して、両者間に排水用の隙間を形成し、両者間の下方への雨水・結露水の流れを良くすると共に、この水を外装材取付金具の底面部の水抜き孔から排水して、外装材取付金具の底面部に水が滞留することを防ぎ、外装材の吸水による耐久性低下を防ぐ。

【0009】また、前記第2の目的を違成するために、本発明の請求項2の外装材の土台部取付構造は、前記外装材取付金具の上部に、前記当接片が複数個間欠的に形成され、各当接片の間に、そのまま上方に延びる延長片が形成されている。

【0010】この構成では、屋外側から施工する場合に は、各延長片を上方に延ばしたまま外装材取付金具を土

10

台に取り付ければ良いが、屋内側から施工する場合に は、各延長片を裏側へ直角に折曲して、各延長片を土台 の上面に釘又はピスにより取り付ける。これにより、屋 外側・屋内側のいずれの側からも容易に外装材取付金具 を取り付けることが可能となる。

【0011】また、請求項3では、前記外装材取付金具 の底面部に、該底面部から前記外装材の下端面を浮き上 がらせるための凸部を形成している。これにより、外装 材取付金具の底面部に受けられた水が水抜き孔に向って 流れ易くなり、排水性が更に向上する。

## [0012]

【発明の実施の形態】以下、本発明の第1の実施形態を 図1及び図2に基づいて説明する。まず、図2に基づい て外装材取付金具11の構造を説明する。外装材取付金 具11は、1枚の帯状金属板の折曲加工により長尺に形 成され、その縦断面形状がほぼL字形状となっている。 この外装材取付金具11の底面部12には、複数の水抜 き孔13が所定間隔で一列に形成され、該底面部12の 先端部には、立上り片14が斜め上向きに折曲形成され ている。また、外装材取付金具11の上部を前側へ逆V 字形若しくは逆U字形に折曲することにより、当接片1 5が形成され、更に、外装材取付金具11の背面部11 a の中間部を前側ヘビード状に型押し加工することによ り、バックアップ凸条部16が形成されている。また、 外装材取付金具11の背面部11 aには複数の釘孔17 が所定間隔で一列に形成されている。

【0013】次に、図1に基づいて、上記外装材取付金 具11を用いて窯業系の外装材21を土台22に取り付 ける構造を説明する。コンクリート基礎23上に土台2 2をアンカーボルト (図示せず) 等で固定し、この土台 22に柱材24を立設している。これら外装材21と柱 材24に対して表側から防水紙25をステーブル等で貼 り付けている。そして、防水紙25の下から水切り材2 6を土台22に沿って水平に宛がい、釘27で土台22 の外側面に打ち付け固定している。この水切り材26の 下部は、庇状に折曲されてコンクリート基礎23の上部 を覆い、雨水がコンクリート基礎23の上部に掛からな いようにしている。

[0014] 更に、この水切り材26の上方に位置し て、外装材取付金具11を防水紙25の下から土台22 に沿って水平に宛がい、釘28で土台22に打ち付け固 定している。この外装材取付金具11の背面部11aの 下部を水切り材26の上部に重ね合わせることで、外装 材取付金具11の水抜き孔13から落下する水が水切り 材26によって確実に排水されるようになっている。こ のようにして土台22に固定された外装材取付金具11 の底面部12で外装材21の下端部が受け支えられ、該 外装材21の下端面に形成された凹条溝29が外装材取 付金具11の立上り片14に嵌め込まれている。

【0015】この取付状態において、外装材21の裏面 50

が外装材取付金具11のバックアップ凸条部16と当接 片15に当接し、これらバックアップ凸条部16と当接 片15が弾性変形することで、外装材21を裏側から弾 性支持して外部からの衝撃荷重を超衝する役割を果た し、外装材21のクラックや欠けを防ぐ。 更に、バック アップ凸条部16と当接片15は、外装材取付金具11 と外装材21の裏面との間に排水用の隙間を確保する役 割も果たし、外装材取付金具11と外装材21の裏面と の間の下方への雨水・結露水の流れを良くする。そし て、この水を外装材取付金具11の底面部12で受けて 水抜き孔13から排水し、外装材取付金具11の底面部 12に水が滞留することを防ぎ、外装材21の下端面か らの吸水を防いで、外装材21の耐久性を向上させる。 【0016】しかも、上記実施形態では、従来と異な り、排水性を損なうことなく外装材取付金具11を長尺 に形成できるので、外壁面の施工に必要な外装材取付金 具11の本数を少なくすることができて、外装材取付金 具11の取付作業を従来より大幅に簡単化でき、施工性 を向上できると共に、外装材取付金具11の水平レベル 20 調整も極めて容易であり、外装材21の土台部取付位置 を水平に一直線上に容易に揃えることができて、施工品 質も向上することができる。

【0017】一方、図3は、本発明の第2の実施形態に 用いる外装材取付金具11の斜視図を示したものであ る。この第2の実施形態では、外装材取付金具11の底。 面部12には、各水抜き孔13の間に上方に突出する凸 部30を形成し、この凸部30によって底面部12から 外装材21の下端面を浮き上がらせるようにしている。 これにより、底面部12に受けられた水が水抜き孔13 に向って流れ易くなり、排水性が更に良くなる。これ以 外の構成は前記第1の実施形態と同じである。

【0018】この他、外装材取付金具11の立上り片1 4の髙さ寸法を外装材21の凹条溝29の深さ寸法より も高くして、立上り片14の上端で外装材21の荷重を 受け支えることにより、底面部12から外装材21の下 端面を浮き上がらせるようにしても良い。

【0019】また、前記第1の実施形態では、コンクリ ート基礎23が土台22から外側に突出しているため、 コンクリート基礎23の上部を水切り材26で覆い、外 装材取付金具11からの排水がコンクリート基礎23の 上部に掛からないようにしたが、図4に示す本発明の第 3の実施形態のように、コンクリート基礎23が土台2 2から突出しない場合には、外装材取付金具11を土台 22の下部からコンクリート基礎23側に突出させるよ うに取り付けるようにしても良い。

[0020] この構成では、コンクリート基礎23と土 台22との接合部が外装材取付金具11の背面部11a で覆われ、該接合部への雨水の侵入を防ぐことができる と共に、外装材取付金具11の水抜き孔13から排水さ れる水が地面に落下するようになり、前記第1の実施形 **憩と同等の排水性を得ることができる。** 

[0021]以上説明した第1乃至第3の各実施形態で用いた外装材取付金具11は、屋外側から施工する場合に用いるものであるが、屋外側の作業スペースが狭い施工現場では、屋内側から外装材21を取り付ける必要がある場合がある。

【0022】この場合には、図5及び図6に示す本発明の第4の実施形態のように構成すれば良い。即ち、外装材取付金具31の上部に、外装材21の裏面に当接する当接片32が複数個間欠的に形成され、各当接片32の10間に、そのまま上方に延びる延長片33が形成され、各延長片33に釘孔34が形成されている。

【0023】この構成では、屋外側から施工する場合には、各延長片33を上方に延ばしたまま外装材取付金具31を前記各実施形態と同じように土台22の外側面に取り付ければ良い。一方、屋内側から施工する場合には、まず、図5に二点鎖線で示すように各延長片33を裏側へ直角に折曲する。この後、図6に示すように、各延長片33を土台22の上面に宛がい、その上方から釘35を土台22の上面に打ち付けることにより、外装材取付金具31を土台22に固定する。これにより、屋外側・屋内側のいずれの側からも容易に外装材取付金具31を取り付けることが可能となる。これ以外の構成は、前記第1の実施形態と同じである。尚、屋外側から施工する場合についても、屋内側から施工する場合についても、屋内側から施工する場合についても、屋内側から施工する場合についても、屋内側から施工する場合についても、屋内側から施工する場合についても、屋内側から施工する場合についても、屋内側から施工する場合についても、屋内側から施工する場合と同じて、図6に示すように各延長片33を裏側へ直角に折曲して施工しても良いことは言うまでもない。

[0024]以上説明した各実施形態では、外装材取付金具11,31を釘28,35で土台22に取り付けるようにしたが、これをピスで取り付けるようにしても良30いことは言うまでもない。また、バックアップ凸条部16や当接片15を間欠的(断続的)に形成して、外装材取付金具11,31と外装材21の裏面との間の下方への雨水・結露水の流れを一層良くするようにしても良い。

### [0025]

【発明の効果】以上の説明から明らかなように、本発明の請求項1の構成によれば、排水性を損なうことなく外装材取付金具を長尺に形成できるので、外壁面の施工に必要な外装材取付金具を帯状にしてその使用本数を少な 40くすることができ、外装材取付金具の取付作業を従来より簡単化できると共に、外装材取付金具の水平レベル調

整も極めて容易であり、施工品質も向上することができる。しかも、外装材取付金具に形成したバックアップ凸条部と当接片とによって外部から外装材に加わる衝撃荷重を緩衝することができて、外装材のクラックや欠けを防ぐことができると共に、外装材取付金具と外装材の裏面との間に排水用の隙間を確保することができて、その隙間を伝い落ちる水を外装材取付金具の底面部の水抜き孔から排水することができ、外装材の吸水による外装材の耐久性低下を防ぐことができる。

【0026】また、請求項2の構成では、外装材取付金 具の上部に間欠的に形成した複数の当接片の間に、その まま上方に延びる延長片を形成したので、各延長片を裏 側へ直角に折曲することで、屋外側・屋内側のいずれの 側からも容易に外装材取付金具を取り付けることができ る。

[0027] また、請求項3では、外装材取付金具の(面部に形成した凸部によって該底面部から外装材の下端面を浮き上がらせることができるので、外装材取付金具の底面部に受けられた水の排水性を更に向上することができる。

【図面の簡単な説明】

【図1】本発明の第1の実施形態を示す外装材の土台部 取付構造の縦断側面図

【図2】第1の実施形態で用いる外装材取付金具の部分 斜視図

【図3】本発明の第2の実施形態で用いる外装材取付金 具の部分斜視図

【図4】本発明の第3の実施形態を示す外装材の土台部 取付構造の凝断側面図

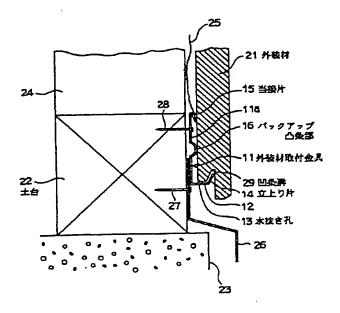
【図5】本発明の第4の実施形態で用いる外装材取付金 具の部分斜視図

【図 6】第4の実施形態における外装材の土台部取付 造の縦断側面図

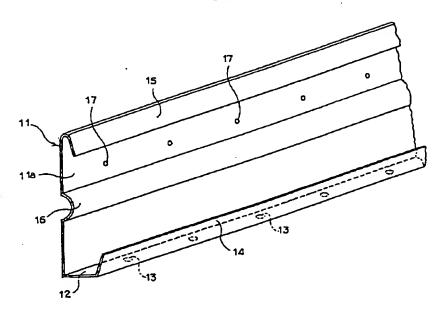
### 【符号の説明】

11…外装材取付金具、11a…背面部、12…底面部、13…水抜き孔、14…立上り片、15…当接片、16…バックアップ凸条部、17…釘孔、21…外装材、22…土台、23…コンクリート基礎、24…柱材、25…防水紙、26…水切り材、27,28…釘、29…凹条溝、30…凸部、31…外装材取付金具、32…当接片、33…延長片、34…釘孔、35…釘。

[図1]

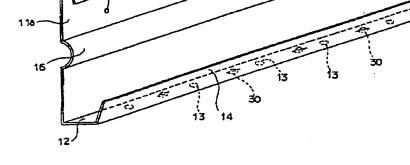


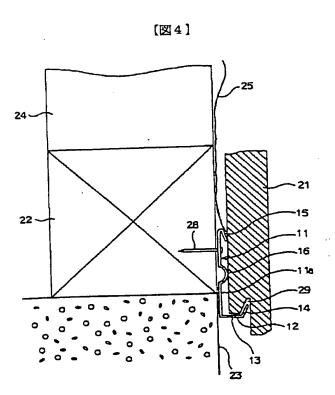
[図2]

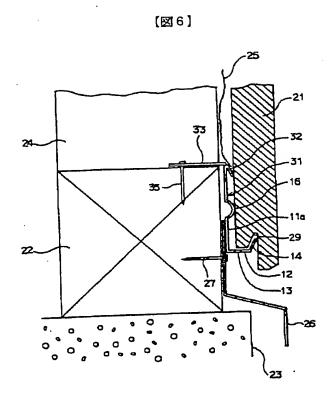


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[図3]







[図5]

